

Project name: CDTA Hybrid Bus Project **Transit agency:** Capital District Transit

Authority

Location: Albany, New York

TIGGER goal: GHG emissions reduction

FTA region number: 2

Award amount: \$3,520,000

Congressional district: NY-20 and

NY-21

Funding mechanism:

Recovery Act (ARRA)

Capital District Transit Authority Adds Hybrid Electric Buses to its Fleet

The Capital District Transit Authority (CDTA) in Albany, New York, is reducing its fuel use and greenhouse gas emissions by increasing the number of hybrid buses in its fleet.



The CDTA fleet includes 250 vehicles, 200 of which were purchased between 1997 and 2000 and now are at or near the end of their service life. CDTA is purchasing 40 new buses, including three hybrid electric buses, to replace some of its older vehicles.

To boost the number of hybrid buses in CDTA's fleet, the TIGGER Program is covering the incremental cost of upgrading 20 of the new buses with hybrid electric propulsion systems. All told, the transit agency will add 23 new hybrid electric buses to its fleet.

Hybrid electric vehicles are particularly suited to the repetitive starting and stopping typical of a city bus route—braking energy, stored in the onboard battery system, is used for acceleration after passenger loading.

CDTA, based in Albany, New York, provides transit services to a four county region covering 2,300 square miles. The transit agency offers 58 regular routes with 50,000 passenger trips each weekday on its local, limited-stop express, parkand-ride, and suburban shuttle service. CDTA also provides demand-responsive service in selected communities. Its on-demand paratransit service (dubbed "special transit available by request," or STAR) features 25 specialized vehicles and provides more than 600 one-way trips a day.



A CDTA diesel bus that has been upgraded with a hybrid propulsion system.

CDTA's new high-efficiency hybrid electric buses, manufactured by Gillig Corporation, will use less diesel fuel than standard diesel buses. Upgrading 20 buses to hybrid electric technology will save CDTA an estimated 90,600 gallons of diesel fuel a year. Based on a \$2.51 per gallon cost of diesel fuel, the transit agency will realize an annual savings of \$227,400. Such savings will result in a payback period of less than nine years.

In addition to saving fuel, the hybrid electric buses will result in cleaner air for the capital district community. Compared to conventional diesel buses, the new hybrid electric buses will reduce annual greenhouse gas emissions by 716.5 tons of carbon dioxide and 11.5 tons of oxides of nitrogen.

Impact:

Upgrading 20 buses to hybrid electric technology will save CDTA an estimated 90,600 gallons of diesel fuel a year while reducing the transit agency's carbon footprint.

About TIGGER

The Transit Investment for Greenhouse Gas and Energy Reduction (TIGGER) Program was established in 2009 by the U.S. Department of Transportation's Federal Transit Administration (FTA). Designed to reduce energy use and greenhouse gas emissions in transit agencies around the country, the TIGGER Program made funds available for capital investments that would reduce greenhouse gas emissions or lower the energy use of public transportation systems. An initial \$100 million in American Recovery and Reinvestment Act grants funded 43 competitively-selected transit projects. In 2010, the FTA provided an additional \$75 million in grants to fund 27 new TIGGER projects. These 70 projects are employing a variety of technologies to meet the program goals, including solar installations, building efficiency improvements, wind technology, wayside energy storage for rail, and purchase of more efficient buses. In fiscal year 2011, FTA provided an additional \$49.9 million to continue the program.

For More Information

Capital District Transit Authority:

www.cdta.org

FTA TIGGER: www.fta.dot.gov/TIGGER



U.S. Department of Transportation Federal Transit Administration 1-866-377-8642

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